

WHAT IS CLAIMED IS:

Signature

1. A mount method for joining a device to a substrate with soldering, characterized in that joint of said device and
5 said substrate through solder is performed in liquid.

2. The mount method as claimed in claim 1, wherein the joint based on said solder is performed while ultrasonic vibration is applied to said solder through the liquid.
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3. The mount method as claimed in claim 1, wherein the liquid is inactive to said device and said substrate.

4. The mount method as claimed in claim 1, wherein said
15 device is an optical device.

5. The mount method as claimed in claim 1, wherein said device is a semiconductor device.

20 6. The mount method as claimed in claim 1, wherein said substrate is a semiconductor substrate.

7. The mount method as claimed in claim 1, wherein said substrate is a substrate for mounting an electric element.
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8. The mount method as claimed in claim 1, wherein said substrate is a ceramic substrate.

9. The mount method as claimed in claim 1, wherein said
30 substrate is a printed circuit board.

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10. A method of joining a substrate electrode formed on a substrate and a device electrode formed on a device to each other by solder to mount the device on the substrate, comprising the steps of:

- 5 attaching a solder piece to the substrate electrode;
 melting the solder piece in liquid to form a solder bump;
 matching the substrate electrode having the solder bump
 formed thereon with the device electrode and disposing the device
 so as to confront the substrate in the liquid;
- 10 positioning the device electrode to the substrate
 electrode by surface tension of the melted solder bump when the
 solder bump is melted in the liquid to join the device electrode
 and the substrate electrode to each other; and then
 solidifying the solder bump.

15 11. The method as claimed in claim 10, wherein when the
 solder piece is melted to form the solder bump, ultrasonic
 vibration is applied to the solder piece through the liquid.

20 12. The method as claimed in claim 10, wherein when the
 solder bump is melted in the liquid to join the device electrode
 and the substrate electrode to each other, ultrasonic vibration
 is applied to the solder bump through the liquid.

25 13. The method as claimed in claim 10, wherein the liquid
 is inactive to said solder, said device and said substrate.

5 ~~14. The method as claimed in claim 10, wherein said~~
 device is an optical device.

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~~15.~~ The method as claimed in claim ~~10~~¹, wherein said device is a semiconductor device.

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~~16.~~ The method as claimed in claim ~~10~~¹, wherein said
5 substrate is a semiconductor substrate.

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~~17.~~ The method as claimed in claim ~~10~~¹, wherein said substrate is a substrate for mounting an electric element.

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~~18.~~ The method as claimed in claim ~~10~~¹, wherein said substrate is a ceramic substrate.

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~~19.~~ The method as claimed in claim ~~10~~¹, wherein said substrate is a printed circuit board.

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